Year 8 Science: Producers, consumers, decomposers and how organisms interact

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. In the chain kawakawa → looper caterpillar → tauhou (silvereye), which organism is the producer?

2. Name the role of the fungi growing on a fallen log.

3. A tapeworm lives in a dog's gut and takes its food. What type of relationship is this?

4. In Room 15's transect, at what distance was marram grass cover highest?

5. Why does an ecosystem need a constant supply of energy from the Sun but not a constant supply of new nutrients?

Fix the mistake

6. Correct this statement: "In a food chain the arrow means 'eats', so it points from the ruru to the wētā."

7. Correct this statement: "Decomposers are not important because they only deal with dead things."

8. Correct this statement: "Energy is recycled round an ecosystem like nutrients are."

9. Correct this statement: "Any relationship where two animals live together is mutualism."

Answer key (for parents and tutors)

1. In the chain kawakawa → looper caterpillar → tauhou (silvereye), which organism is the producer?
   Kawakawa, because it makes its own food by photosynthesis.
2. Name the role of the fungi growing on a fallen log.
   Decomposers, breaking the log down and returning nutrients to the soil.
3. A tapeworm lives in a dog's gut and takes its food. What type of relationship is this?
   Parasitism: the tapeworm gains and the dog is harmed.
4. In Room 15's transect, at what distance was marram grass cover highest?
   At 30 m, with 80% cover.
5. Why does an ecosystem need a constant supply of energy from the Sun but not a constant supply of new nutrients?
   Energy is lost as heat at every step, but nutrients are recycled by decomposers and used again.
6. Correct this statement: "In a food chain the arrow means 'eats', so it points from the ruru to the wētā."
   The arrow shows where energy goes, so it points from the food to the eater: wētā → ruru.
7. Correct this statement: "Decomposers are not important because they only deal with dead things."
   Decomposers return nutrients to the soil, and without them plants would run out of nutrients.
8. Correct this statement: "Energy is recycled round an ecosystem like nutrients are."
   Matter cycles, but energy flows one way and is lost as heat, so it must keep coming from the Sun.
9. Correct this statement: "Any relationship where two animals live together is mutualism."
   It is only mutualism if both benefit; if one is harmed, as with fleas on a dog, it is parasitism.